Appl. No. 09/915,723 Amdt. Dated April 28, 2003 Reply to Official Action of October 27, 2003

Attorney File No6800-62473

This listing of claims will replace all prior versions and listings of claims in this application:

## **Listing of Claims:**

1. (Currently amended) A quartz crystal microbalance sensor using molecularly imprinted polymers comprising:

a quartz crystal microbalance sensor having a surface;

a matrix of synthesized monomers coating said surface; and

a multifunctional monomer for use as an adhesive <u>wherein said multifunctional monomer</u> is bis(dehydroalanine) comprising the formula;

wherein said multifunctional monomer adheres [the] <u>a</u> polymerized matrix to said surface of said sensor, and said matrix is a molecularly imprinted polymer.

- 2. (Cancelled)
- 3. (Original) The sensor as claimed in claim 1, wherein said synthesized monomers comprise acrylic monomers having aromatic linkers.
- 4. (Original) A quartz crystal microbalance sensor using molecularly imprinted polymers comprising:
  - a quartz crystal microbalance sensor having a surface;
- a matrix of acrylic monomers polymerized to coat said surface of said quartz microbalance sensor; and
  - a multifunctional monomer comprising bis(dehydroalanine) of the structure

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wherein said bis(dehysroalanine) adheres [said] a polymerized matrix to said surface of said sensor, and wherein said matrix is molecularly imprinted.

5. (Currently amended) An apparatus for detecting at least one contaminant in a solution, said [apparatus] apparatus comprising:

a conduit;

a molecularly imprinted polymer to attract said contaminant, said molecularly imprinted polymer [disposed within said conduit; and] adhered with an adhesive which is bis(dehydroalanine) having the structure

a quartz crystal microbalance sensor <u>positioned within said conduit</u> for sensing said contaminant attracted by said molecularly imprinted polymer <u>such that said molecularly</u> imprinted polymer is affixed to said quartz crystal microbalance sensor via said adhesive;

wherein said sensor sends a signal indicating said contaminant is present in said solution.

- 6. (Original) The apparatus as claimed in claim 5 further comprising a microprocessor in communication with said sensor, said microprocessor being programmed to process said signal and determine the presence of said contaminant based upon the processed signal.
- 7. (Original) The apparatus as claimed in claim 5 further comprising a multifunctional monomer for use as an adhesive, wherein said multifunctional monomer adheres said molecularly imprinted polymer to said sensor.

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9. The apparatus as claimed in claim [8] 7 wherein said molecularly imprinted polymer is programmed to attract a contaminant selected from the group consisting of hexachlorobenzene, cyclohexane, chlorobenzene, benzene, and anisole.